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OPEN-001 (was PA1516US)*In the Specification:***Please replace the bottom paragraph of page 1 with:**

The invention relates generally to the field of data management and more particularly to managing data related to bills of material on a computer network.

Please replace the first paragraph of page 2 with:

During development and manufacturing of a product, elements, parts or components of the product are often kept in a structured item list called a bill of materials (hereinafter BOM, while the plural form, bills of material, is abbreviated as BOMs). For each such product, a BOM is used to keep track of information such as the number of parts used in manufacturing the product, the identification of parts, part vendors, and part costs. The BOM may also be used as an index or organizational tool for the documentation of a product's components such as component datasheets and mechanical drawings. Furthermore, in some instances BOMs include non-material elements such as assembly and finishing processes, machining steps, and connections. Finally, BOMs may include reference items such as tooling or agency certifications which are not actually included in the product itself, but which are required for its manufacture.

Please replace the paragraph starting page 16, line 30 and ending on page 17, line 8 with:

FIG. 3 shows one aspect of the invention, an owner list data structure 300 of data owner list 205, which includes a plurality of data records 302 (rows) and typically includes more data records 302 than are illustrated in FIG. 3. Each data record 302 includes several data fields 304, including a unique owner identifier data field 310 of which the contents are required to be unique with respect to all other data records 302, and can therefore be used to index and uniquely reference any particular data record 302 within the namespace of RDBMS 210. Thus, unique owner identifier data field 310 is a primary key for owner list data structure 300. Owner list data structure 300 optionally includes other data fields 320.

Please replace the paragraph starting page 17, line 17 and ending on page 18, line 2 with:

FIG. 4 shows a user list data structure 400 of user list 208. User list data structure 400 includes a plurality of data records 402 (rows), typically more than in FIG. 4, each including several data fields generally designated 404. User list data structure 400 includes an owner data field 410 and a unique user identifier 425. For each data record 402, the contents of owner data field 410 are required to match the contents of unique owner identifier data field 310 in one and only one owner list data record 302. That is, owner data field 410 references unique owner identifier data record 310 as a foreign key. In addition, for each data record 402, the contents of unique user identifier data field 425 are a primary key for user list data structure

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400 within the namespace of RDBMS 210. In addition, user list data structure 400 may optionally include other data fields 430 such as user name data field 433 and user password data field 436. Additional data fields 440 are optionally added to user list data structure 400 as desired.

Please replace the paragraph starting page 20, line 24 and ending on page 21, line 4 with:

Various applications of this method will be apparent to those skilled in the art. For example, element relations list data structure 600 optionally includes other data fields 630 in addition to element parent data field 620 and element child data field 625. In an aspect of the invention, other data fields 630 include child quantity data field 626, which contains a number indicating how many of the child BOM elements are included in each of the parent BOM elements. The contents of other data fields 630 are preferably specified by users of the invention. Typically, element list data structure 600 will include more data fields 630 in addition to those shown. Also shown in FIG. 6 is optional workspace context data field 615, the purpose of which is explained below.

Please replace the paragraph starting page 21, line 22 and ending on page 22, line 8 with:

FIG. 7 is an illustration of a generalized data structure 700 according to another aspect of the invention. Generalized data structure 700 includes a plurality of data records 702 (rows) and typically includes more data records 702 than are shown in FIG. 7. Each data record 702 includes several data fields generally designated 704. Generalized data structure 700 includes a primary key data field 705 and an owner data field 710. Primary key data field 705 is a primary key for generalized data structure 700 within the namespace of RDBMS 210. Owner data field 710 references unique owner identifier data field 310 as a foreign key. At least one other data field 730 is required. Other data field 730 contains data owned by the user or data owner indicated in owner data field 710. In one aspect, generalized data structure 700 includes optional workspace context data field 715. In another aspect, generalized data structure 700 is used to store all data within memory 104 that is owned by an entity represented in data owner list 205. Both element list 206 and element relations list 207 are specific examples of generalized data structure 700.

Kindly change the paragraph starting page 37, line 15 and ending on page 38, line 2 to the following:

In another aspect of the invention a method for automatically analyzing the content of one or more bills of material by component type is provided. This method permits analysis using different categorization schemes and at different levels of detail within each categorization scheme. For example, a user can query the database to calculate the cost subtotals by category for all components contained in a bill of materials at any level in the categorization tree. A product manager can

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DETAILS OF AMENDMENTS TO THE SPECIFICATION

The bottom paragraph of page 1 is amended as follows:

The invention relates generally to the field of data management and more particularly to managing data related to bills of ~~materials~~ material on a computer network.

The first paragraph of page 2 is amended as follows:

During development and manufacturing of a product, elements, parts or components of the product are often kept in a structured item list called a bill of materials (hereinafter BOM, while the plural form, bills of material, is abbreviated as BOMs). For each such product, a BOM is used to keep track of information such as the number of parts used in manufacturing the product, the identification of parts, part vendors, and part costs. The BOM may also be used as an index or organizational tool for the documentation of a product's components such as component datasheets and mechanical drawings. Furthermore, in some instances BOMs include non-material elements such as assembly and finishing processes, machining steps, and connections. Finally, BOMs may include reference items such as tooling or agency certifications which are not actually included in the product itself, but which are required for its manufacture.

The paragraph starting page 16, line 30 and ending on page 17, line 8 is amended as follows:

FIG. 3 shows one aspect of the invention, a ~~data~~ an owner list ~~205~~ owner list data structure 300 ~~of data owner list 205~~, which includes a plurality of data records 302 (rows) and typically includes more data records 302 than are illustrated in FIG. 3. Each data record 302 includes several data fields 304, including a unique owner identifier data field 310 of which the contents are required to be unique with respect to all other data records 302, and can therefore be used to index and uniquely reference any particular data record 302 within the namespace of RDBMS 210. Thus, unique owner identifier data field 310 is a primary key for owner list data structure 300. Owner list data structure 300 optionally includes other data fields 320.

The paragraph starting page 17, line 17 and ending on page 18, line 2 is amended as follows:

FIG. 4 shows a user list data structure 400 of user list 208. User list data structure 400 includes a plurality of data records 402 (rows), typically more than in FIG. 4, each including several data fields generally designated ~~304~~ 404. User list data structure 400 includes an owner data field 410 and a unique user identifier 425. For each data record 402, the contents of owner data field 410 are required to match the contents of unique owner identifier data field 310 in one and only one owner list

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data record 302. That is, owner data field 410 references unique owner identifier data record 310 as a foreign key. In addition, for each data record 402, the contents of unique user identifier data field 425 are a primary key for user list data structure 400 within the namespace of RDBMS 210. In addition, user list data structure 400 may optionally include other data fields 430 such as user name data field 433 and user password data field 436. Additional data fields 440 are optionally added to user list data structure 400 as desired.

The paragraph starting page 20, line 24 and ending on page 21, line 4 is amended as follows:

Various applications of this method will be apparent to those skilled in the art. For example, element relations list data structure 600 optionally includes other data fields 630 in addition to element parent data field 620 and element child data field 625. In an aspect of the invention, other data fields 630 include child quantity data field 626, which contains a number indicating how many of the child BOM elements are included in each of the parent BOM elements. The contents of other data fields 630 are preferably specified by users of the invention. Typically, element list data structure 600 will include more data fields ~~530~~630 in addition to those shown. Also shown in FIG. 6 is optional workspace context data field 615, the purpose of which is explained below.

The paragraph starting page 21, line 22 and ending on page 22, line 8 is amended as follows:

FIG. 7 is an illustration of a generalized data structure 700 according to another aspect of the invention. Generalized data structure 700 includes a plurality of data records 702 (rows) and typically includes more data records 702 than are shown in FIG. 7. Each data record 702 includes several data fields generally designated ~~304~~704. Generalized data structure 700 includes a primary key data field 705 and an owner data field 710. Primary key data field 705 is a primary key for generalized data structure 700 within the namespace of RDBMS 210. Owner data field 710 references unique owner identifier data field 310 as a foreign key. At least one other data field 730 is required. Other data field 730 contains data owned by the user or data owner indicated in owner data field 710. In one aspect, generalized data structure 700 includes optional workspace context data field 715. In another aspect, generalized data structure 700 is used to store all data within memory 104 that is owned by an entity represented in data owner list 205. Both element list 206 and element relations list 207 are specific examples of generalized data structure 700.

The paragraph starting page 37, line 15 and ending on page 38, line 2 is amended as follows:

In another aspect of the invention a method for automatically analyzing the content of one or more bills of ~~materials~~material by component type is provided. This method permits analysis using different categorization schemes and at different

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levels of detail within each categorization scheme. For example, a user can query the database to calculate the cost subtotals by category for all components contained in a bill of materials at any level in the categorization tree. A product manager can look at the subtotals at the top level of the tree in order to understand how the product cost was divided between electrical and mechanical components. An electrical engineer can look at the subtotals for only the electrical sub-categories to see how the product cost was divided between passive components, active components, and connectors. A salesperson can develop a completely different categorization scheme based on target markets and use it to analyze product offerings by target market. The owner of system 100 can develop a categorization scheme that is independent of any user's schemes and employ the independent scheme to guide the placement of targeted advertising.